BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Wireless Broadband Access Task Force Seeks	)	GN Docket No. 04-163
Public Comment On Issues Related To	)	
Commission's Wireless Broadband Policies	)	
	)	

COMMENTS OF THE
TELECOMMUNICATIONS INDUSTRY ASSOCIATION

The Telecommunications Industry Association ("TIA") hereby submits comments in response to the Public Notice in the above-captioned proceeding.[1]

[1] *Public Notice*, DA 04-1266 (released May 5, 2004) ("Inquiry").

I. INTRODUCTION

TIA is the leading trade association representing the communications and information technology industry, with 700 member companies that manufacture or supply the products and services used in global communications. Among their numerous lines of business, TIA member companies design, produce and deploy terrestrial and satellite wireless network and terminal equipment. As a result, TIA has a substantial interest in current and future Federal Communications Commission ("FCC" or "Commission") spectrum management decisions and activities related to the development of wireless broadband services.

In this Inquiry, the Commission seeks comment on a range of issues related to wireless broadband access. Recognizing that wireless broadband platforms are an increasingly popular alternative for business and residential consumers to access the Internet, the Commission established the Wireless Broadband Access Task Force ("Task Force") to review applicable spectrum management policies and regulations. One principal objective of the Task Force is to develop recommendations with the goal of furthering the deployment of wireless Internet service. The Task Force will provide a report with its findings and recommendations to the Commission by the end of October 2004.

TIA is pleased to assist the Commission, and its Task Force, with its review of current FCC spectrum policies. TIA strongly supports the Commission's desire to promote more efficient use of spectrum and to create opportunities for new and additional uses of wireless communications by the American public. As Chairman Powell and other fellow commissioners noted at the FCC's recent wireless broadband forum, wireless

technologies have the potential to deliver broadband to rural and underserved areas, and to compete with existing and future wired broadband technologies. TIA agrees it is important to encourage the deployment of advanced wireless networks that can support converged communications services offering consumers competitive choices of voice, video and data applications. Moreover, TIA believes it is vitally important for the Commission to support wireless broadband in its policymaking efforts if it is to meet the U.S. President's stated goal of delivering broadband services to every home in America by 2007.[2]

II. DISCUSSION

In this Inquiry, the Commission seeks comment on whether sufficient radio frequency spectrum is available for wireless broadband networks. Simply put, TIA believes that more spectrum should be made available for wireless broadband access. There is no doubt that the demand for wireless broadband services will continue to grow rapidly. Licensed CMRS providers today are rolling out "3G" services, and WiFi and other unlicensed technologies continue to penetrate the residential, enterprise, and public sectors. In TIA's view, these are two harbingers of the public's desire for the wireless broadband applications of tomorrow.

In considering spectrum allocations, the Commission should endeavor to assign wireless broadband services to bands that will facilitate the creation of economically

[2] *See* Remarks by the President at the American Association of Community Colleges Annual Convention, Minneapolis, Minnesota, Apr. 26, 2004, available at http://www.whitehouse.gov/news/releases/2004/04/20040426-6.html.

successful business models while providing ample consideration to existing licensed services. Spectrum below 6 GHz is especially well suited for these services as its propagation characteristics enable coverage of large geographic areas while supporting high broadband data rates.

TIA also believes that the Commission should seek a balance between licensed and unlicensed spectrum available for wireless broadband services. The license-exempt services have experienced tremendous growth that has recently led the Commission to assign an additional 255 MHz of spectrum in the 5 GHz band for unlicensed devices.

We therefore encourage the FCC to continue its search for spectrum, to the extent possible, for wireless broadband services. In addition, the "licensing lite" model recently adopted by the Commission in the 70, 80, and 90 GHz bands is a useful mechanism for reconciling the need for exclusivity in spectrum, while creating a service that has low barriers to entry. TIA notes, however, that the "licensing lite" model is by no means the only appropriate model for licensing wireless broadband systems. Other spectrum access schemes may be appropriate depending on the bands chosen. For example, licensees should be allowed to participate in secondary leasing arrangements. TIA supports the development of secondary markets that would allow licensees to transfer their assigned spectrum through sale, lease, or subdivision. TIA encourages the Commission to continue to grant licensees greater flexibility in their use of licensed spectrum.

When considering spectrum allocation for wireless broadband access the Commission should keep the following principles in mind:

A. Spectrum Harmonization

Spectrum increases greatly in value and utility to the service providers if it is harmonized with spectrum allocated for similar use in other countries. TIA supports spectrum harmonization and asks the FCC to be mindful of its benefits to the public. To the extent possible, the FCC should strive to harmonize its spectrum allocations with those of other nations.

Spectrum harmonization refers to the use of the same spectrum bands, duplex methods, pairings, block sizes, duplex directions, duplex separation distances, out-of-band emissions, and other technical requirement for the deployment of the same or similar services in different countries. Spectrum harmonization is achieved through the domestic and international regulatory domain.

Spectrum harmonization provides important benefits to technology providers and service operators that can be passed on to consumers, including: i) lower equipment development and production costs due to economies of scale, and reuse of components and engineering solutions; and ii) smaller terminal equipment size due to higher degree of electronics integration, fewer frequency-related components, and a resultant reduction in terminal power requirements and battery size.

The general benefits of increased economies of scale and competition in a large spectrum harmonized market may include earlier market availability of new features and services; larger product variety serving more consumer segments; higher penetration rates

for some services/applications; lower market prices for equipment; and the facilitation of roaming.

In summary, harmonization may allow consumers to have access to terminals that are less expensive, smaller, have lower power consumption, longer usage times, and more functionality. New products and services can be deployed in the market faster, and can be offered in greater variety.

B. Licensed Spectrum

In recent years, the FCC has increasingly turned to auctions as a licensing mechanism. Auctions can ensure that spectrum is delivered into the hands of providers who value the spectrum the most.

While auctions may provide an effective means for assigning licenses, the costs of auctions and potential associated incumbent relocations place a tremendous financial burden on licensees, which ultimately increases the costs to end-users. When assigning spectrum, a regulator, following due diligence, needs to assign licenses quickly and with minimal administrative costs to the entity that will make the best use of this public resource.

Whereas auctions may be an effective license assignment tool, they are not a substitute for sound spectrum allocation decisions. Moreover, auctions must be structured to facilitate deployment of services and should not be used solely as a means to generate public revenue. Auctioning of spectrum simply to meet public budget objectives often results in inefficient spectrum uses, diminished investments in innovative technologies, higher equipment and service prices, and delayed deployment. Proper

spectrum management requires long-term planning that balances the needs of private, public, and commercial interests.

Before assigning licenses, the Commission should establish service rules that clearly define the initial geographic scope and bandwidth of licenses, taking into account the various characteristics of different frequencies, electromagnetic compatibility, geographic topology, public safety, and, in general, the different spectrum needs of broad categories of services. This flexible approach allows for development of technologies to make the most effective and efficient use of the bandwidth by certain services, while permitting the introduction of new services.

Once the broader spectrum allocation decisions are made and service rules are established, spectrum auctions may effectively be used to assign commercial licenses among competing interests. Prior to conducting an auction or any other non-discriminatory and transparent process to award licenses, the Commission should provide prospective applicants with sufficient time to make technology investment decisions, establish business plans, and where auctions are used, develop bidding strategies.

Auctions should be conducted in such a way as to create certainty for operators about when spectrum will be available for use. Auctioned spectrum should be unencumbered where possible. To the extent that spectrum is encumbered by legacy users, the proceeds from the auction should be used to fund the relocation of incumbents. This will provide greater certainty in the auction process and accelerate the introduction of new services and help relieve some of the upfront burden of paying the auction debt prior to deployment of the system and generation of revenue.

As mentioned above, different assignment models are needed and one alternative to auctions is the "licensing lite" model, successfully used for wireless links in the 70/80/90 GHz bands, that allows users to simply register a wireless link on a first-come first-served basis.[3] Importantly, registration gives the user exclusive use of that wireless link. No auctions are required, which significantly lowers barriers to entry for these broadband links. TIA encourages the Commission, as it contemplates licensing models, to consider the "licensing lite" model as a good way to reconcile the need for exclusivity in spectrum, while creating a service that has low barriers to entry.

C. Unlicensed Spectrum

Making spectrum available on an unlicensed basis is essential for continued innovation in a wide variety of products and applications that are important to consumers and businesses alike, including wireless broadband services. Because the same can be said for systems operating on a licensed basis, a balanced approach is needed when making spectrum available on both a licensed and unlicensed basis. This balanced approach promotes the public's access to the fullest range of innovative new wireless products and services. Unlicensed devices and services have a broad market potential, including the possible creation of flexible and inexpensive networks to serve businesses and consumers in both metropolitan and rural areas. At the same time, they do not replace the ubiquitous, reliable and feature-rich solutions offered by licensed networks. TIA supports the availability of additional spectrum for unlicensed uses, including for use in wireless broadband deployments, and believes that policies and regulations for

[3] This licensing scheme is achievable due to the fact that systems proposed for the band concentrate radiated power in very narrow paths and have considerable attenuation at much shorter distances than occurs in the lower microwave bands.

unlicensed services should adhere to the following principles:

- New exclusive allocations for unlicensed uses should be made in spectrum not assigned to licensed services. This will provide maximum flexibility and possibility for innovation.
- If spectrum already assigned to licensed services is allowed by the Commission to be used by devices on an unlicensed basis, technical studies must demonstrate that such uses will not cause interference to licensed services in the same and adjacent bands. The ability to introduce unlicensed operations in bands already assigned to licensed services, and the conditions for doing so, will greatly depend on the nature and characteristics of the higher status operations in the band. In particular, bands that are used for critical operations will be less tolerant to interference. Furthermore, the use of unlicensed devices in bands already assigned to licensed services must be subject to clear and enforceable interference rules.
- In making spectrum available for unlicensed devices, a technical framework should be developed to maximize the utility and efficiency of the unlicensed use, consistent with interference protection of other services. The framework can include, for example, spectrum access requirements and maximum spectrum occupancy limits to provide for equitable access to and utilization of spectrum without disadvantaging any particular uses or users.

- Responsible governmental agencies should work in a coordinated manner to ensure that additional spectrum appropriate for unlicensed uses is made available in a timely manner.

Assuming that the above principles are followed, global or regional coordination of harmonized spectrum allocations for national use on an unlicensed or license-exempt basis should also be a priority in order to ensure that businesses and consumers receive the benefits of economies of scale, interoperability among carriers and seamless roaming across national borders.

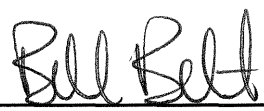
III. CONCLUSION

TIA applauds the Commission's ongoing efforts to increase consumer choice in accessing the Internet. TIA has long believed that sound spectrum management is critical to the future success of the communications industry. TIA strongly supports Commission consideration of mechanisms and licensing models that allow more use of spectrum for wireless broadband access services.

TIA member companies design, develop and manufacture a wide array of communications equipment, including systems that are subject to, and affected by, the Commission's regulatory oversight. TIA therefore has a direct and substantial interest in the spectrum management activities of the Commission and, more specifically, in the outcome of the issues addressed in this Inquiry. TIA requests that the Commission take into consideration the views expressed above.

Respectfully submitted,

Telecommunications Industry Association

By: 

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